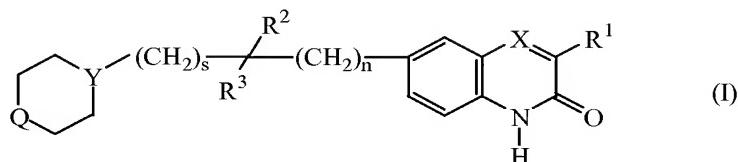


Listing of Claims:

This listing of claims replaces all prior versions, and listings, of claims in the captioned application.

5

1. (Original) A compound of formula (I),



10

the *N*-oxide forms, the addition salts and the stereo-chemically isomeric forms thereof, wherein

n is 0 or 1;

15 s is 0 or 1;

X is $\text{-N}=\text{}$ or $\text{-CR}^4\text{=}$, wherein R^4 is hydrogen or taken together with R^1 may form a bivalent radical of formula -CH=CH-CH=CH- ;

20 Y is $\text{-N}^<\text{}$ or $\text{-CH}^<\text{}$;

Q is -NH- , -O- , -C(O)- , $\text{-CH}_2\text{-CH}_2\text{-}$ or $\text{-CHR}^5\text{-}$,

wherein R^5 is hydrogen, hydroxy, $\text{C}_{1-6}\text{alkyl}$, aryl $\text{C}_{1-6}\text{alkyl}$, $\text{C}_{1-6}\text{alkyloxycarbonyl}$, $\text{C}_{1-6}\text{alkyloxyC}_{1-6}\text{alkylamino}$ or haloindazolyl;

25

R^1 is $\text{C}_{1-6}\text{alkyl}$ or thienyl;

R^2 is hydrogen or taken together with R^3 may form $=\text{O}$;

30 R^3 is hydrogen, $\text{C}_{1-6}\text{alkyl}$ or a radical selected from

- NR^6R^7 (a-1),
- O-H (a-2),
- O-R^8 (a-3),
- S-R^9 (a-4), or
- $\text{C}\equiv\text{N}$ (a-5),

35

wherein

R⁶ is -CHO, C₁₋₆alkyl, hydroxyC₁₋₆alkyl, C₁₋₆alkylcarbonyl, di(C₁₋₆alkyl)aminoC₁₋₆alkyl, C₁₋₆alkylcarbonylaminoC₁₋₆alkyl, piperidinylC₁₋₆alkyl, piperidinylC₁₋₆alkylaminocarbonyl, C₁₋₆alkyloxy, C₁₋₆alkyloxyC₁₋₆alkyl, thienylC₁₋₆alkyl, pyrrolylC₁₋₆alkyl, arylC₁₋₆alkylpiperidinyl, arylcarbonylC₁₋₆alkyl, arylcarbonylpiperidinylC₁₋₆alkyl, haloindozolylpiperidinylC₁₋₆alkyl, or arylC₁₋₆alkyl(C₁₋₆alkyl)aminoC₁₋₆alkyl; and R⁷ is hydrogen or C₁₋₆alkyl;

R⁸ is C₁₋₆alkyl, C₁₋₆alkylcarbonyl or di(C₁₋₆alkyl)aminoC₁₋₆alkyl; and

10 R⁹ is di(C₁₋₆alkyl)aminoC₁₋₆alkyl;

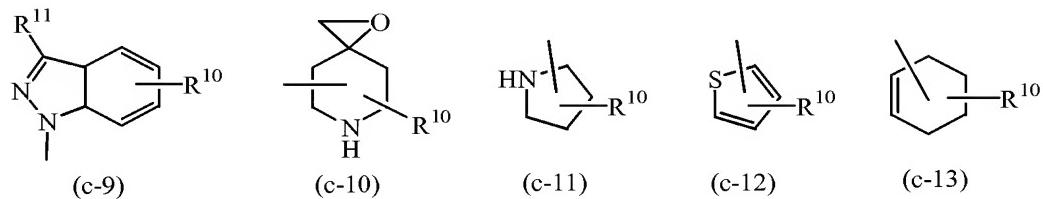
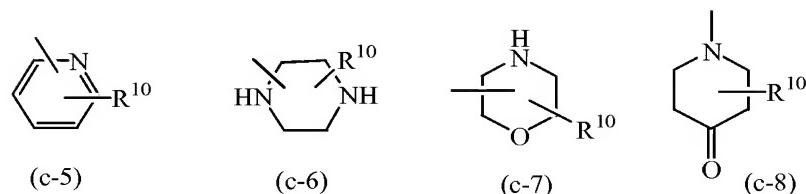
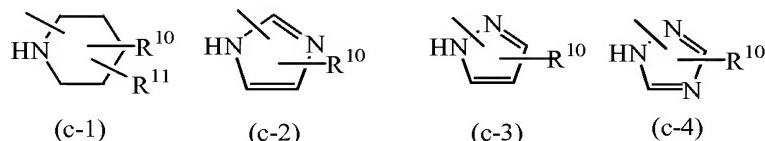
or R³ is a group of formula



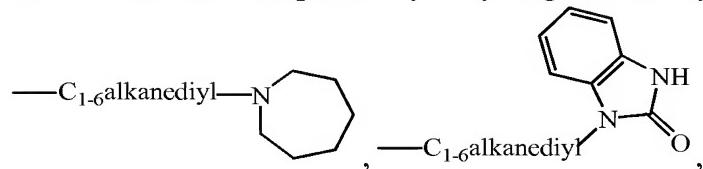
wherein

t is 0, 1 or 2;

15 Z is a heterocyclic ring system selected from



20 wherein each R¹⁰ independently is hydrogen, C₁₋₆alkyl, aminocarbonyl, hydroxy,



C₁₋₆alkyloxyC₁₋₆alkyl, C₁₋₆alkyloxyC₁₋₆alkylamino, di(phenylC₂₋₆alkenyl), piperidinylC₁₋₆alkyl, C₃₋₁₀cycloalkyl, C₃₋₁₀cycloalkylC₁₋₆alkyl, aryloxy(hydroxy)C₁₋₆alkyl, haloindazolyl, arylC₁₋₆alkyl, arylC₂₋₆alkenyl, morpholino, C₁₋₆alkylimidazolyl, or pyridinylC₁₋₆alkylamino;
5 each R¹¹ independently is hydrogen, hydroxy, piperidinyl or aryl;

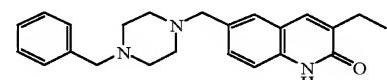
aryl is phenyl or phenyl substituted with halo, C₁₋₆alkyl or C₁₋₆alkyloxy;

10 with the proviso that 6-(cyclohexyl-1*H*-imidazol-1-ylmethyl)-3-methyl-2(*H*)-quinoxalinone is not included.

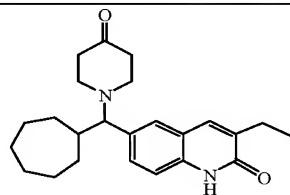
15 2. (Original) A compound as claimed in claim 1 wherein X is -N= or -CH=; R¹ is C₁₋₆alkyl; R³ is hydrogen, C₁₋₆alkyl, a radical selected from (a-1), (a-2), (a-3) or (a-4) or a group of formula (b-1); R⁶ is di(C₁₋₆alkyl)aminoC₁₋₆alkyl or C₁₋₆alkyloxyC₁₋₆alkyl; R⁷ is hydrogen; R⁸ is di(C₁₋₆alkyl)aminoC₁₋₆alkyl; t is 0 or 2; Z is a heterocyclic ring system selected from (c-1), (c-5), (c-6), (c-8), (c-10), (c-12) or (c-13); each R¹⁰ independently is hydrogen, C₁₋₆alkyl, hydroxy, C₁₋₆alkyloxyC₁₋₆alkyl, C₁₋₆alkyloxyC₁₋₆alkylamino, morpholino, C₁₋₆alkylimidazolyl, or pyridinylC₁₋₆alkylamino; each R¹¹ independently is hydrogen or hydroxy; and 20 aryl is phenyl.

25 3. (Currently Amended) A compound according to claim 1 ~~and 2~~ wherein n is 0; X is CH; Q is -NH-, -CH₂-CH₂- or -CHR⁵-, wherein R⁵ is hydrogen, hydroxy, or arylC₁₋₆alkyl; R¹ is C₁₋₆alkyl; R² is hydrogen; R³ is hydrogen, hydroxy or a group of formula (b-1); t is 0; Z is a heterocyclic ring system selected from (c-8) or (c-13); each R¹⁰ independently is hydrogen; and aryl is phenyl.

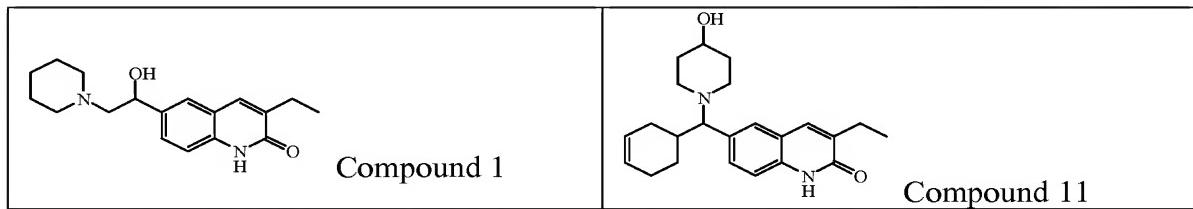
30 4. (Currently Amended) A compound ~~according to claim 1, 2 and 3 wherein the compound is selected from the group consisting of: compound No 7, compound No 2, compound No 1 and compound No 11.~~



Compound 7



Compound 2



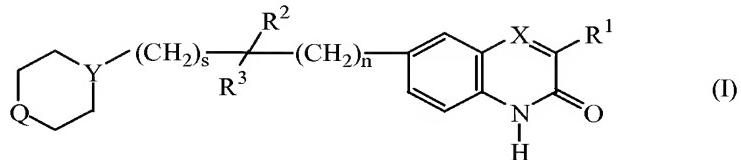
5. (Cancelled)

6. (Currently Amended) A pharmaceutical composition comprising pharmaceutically acceptable carriers and as an active ingredient a therapeutically effective amount of a compound as claimed in claim 1 to 4.

7. (Cancelled).

10 8. (Currently Amended) A method of treating Use of a compound for the manufacture of a medicament for the treatment of in a subject a PARP mediated disorder, comprising administering to the subject a therapeutically effective amount of wherein the compound is a compound of formula (I)

15



the N-oxide forms, the pharmaceutically acceptable addition salts and the stereo-chemically isomeric forms thereof, wherein

20

n is 0 or 1;

s is 0 or 1;

25 X is -N= or -CR^4=, wherein R^4 is hydrogen or taken together with R^1 may form a bivalent radical of formula -CH=CH-CH=CH-;

Y is -N< or -CH<;

Q is -NH-, -O-, -C(O)-, -CH₂-CH₂- or -CHR⁵-,

30 wherein R⁵ is hydrogen, hydroxy, C₁₋₆alkyl, arylC₁₋₆alkyl, C₁₋₆alkyloxycarbonyl,

C₁₋₆alkyloxyC₁₋₆alkylamino or haloindazolyl;

R¹ is C₁₋₆alkyl or thienyl;

5 R² is hydrogen or taken together with R³ may form =O;

R³ is hydrogen, C₁₋₆alkyl or a radical selected from

- NR⁶R⁷ (a-1),
- O-H (a-2),
- 10 - O-R⁸ (a-3),
- S- R⁹ (a-4), or
- C≡N (a-5),

wherein

R⁶ is —CHO, C₁₋₆alkyl, hydroxyC₁₋₆alkyl, C₁₋₆alkylcarbonyl, di(C₁₋₆alkyl)aminoC₁₋₆alkyl, C₁₋₆alkylcarbonylaminoC₁₋₆alkyl, piperidinylC₁₋₆alkyl, piperidinylC₁₋₆alkylaminocarbonyl, C₁₋₆alkyloxy, C₁₋₆alkyloxyC₁₋₆alkyl, thienylC₁₋₆alkyl, pyrrolylC₁₋₆alkyl, arylC₁₋₆alkylpiperidinyl, arylcarbonylC₁₋₆alkyl, arylcarbonylpiperidinylC₁₋₆alkyl, haloindozolylpiperidinylC₁₋₆alkyl, or arylC₁₋₆alkyl(C₁₋₆alkyl)aminoC₁₋₆alkyl; and

20 R⁷ is hydrogen or C₁₋₆alkyl;

R⁸ is C₁₋₆alkyl, C₁₋₆alkylcarbonyl or di(C₁₋₆alkyl)aminoC₁₋₆alkyl; and

R⁹ is di(C₁₋₆alkyl)aminoC₁₋₆alkyl;

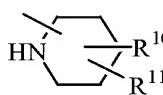
or R³ is a group of formula

- (CH₂)_t-Z- (b-1),

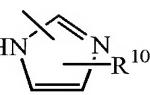
25 wherein

t is 0, 1 or 2;

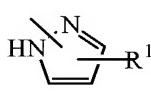
Z is a heterocyclic ring system selected from



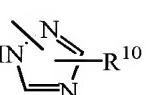
(c-1)



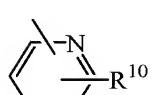
(c-2)



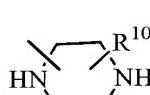
(c-3)



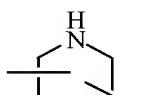
(c-4)



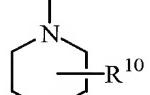
(c-5)



(c-6)

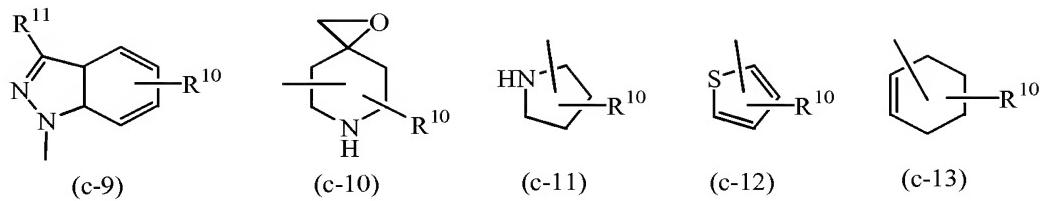


(c-7)

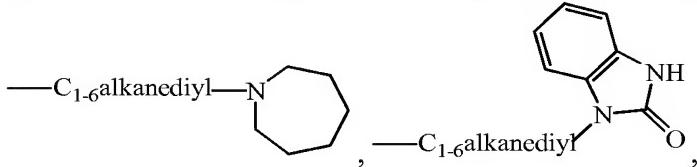


(c-8)

30



wherein each R¹⁰ independently is hydrogen, C₁₋₆alkyl, aminocarbonyl, hydroxy,



5 C₁₋₆alkyloxyC₁₋₆alkyl, C₁₋₆alkyloxyC₁₋₆alkylamino, di(phenylC₂₋₆alkenyl), piperidinylC₁₋₆alkyl, C₃₋₁₀cycloalkyl, C₃₋₁₀cycloalkylC₁₋₆alkyl, aryloxy(hydroxy)C₁₋₆alkyl, haloindazolyl, arylC₁₋₆alkyl, arylC₂₋₆alkenyl, morpholino, C₁₋₆alkylimidazolyl, or pyridinylC₁₋₆alkylamino;
10 each R¹¹ independently is hydrogen, hydroxy, piperidinyl or aryl;

aryl is phenyl or phenyl substituted with halo, C₁₋₆alkyl or C₁₋₆alkyloxy.

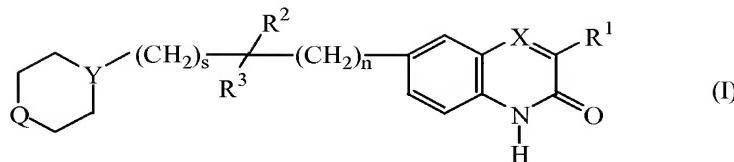
9. (Cancelled)

15 10. (Currently Amended) A method for enhancing the effectiveness of chemotherapy of comprising administration of a compound according to claim 1, in a therapeutically effective amount so as to increase sensitivity of cells to chemotherapy, prior to administration of said chemotherapy Use according to claim 8 and 9 wherein the treatment involves chemosensitization.

20 11. (Currently Amended) A method for enhancing the effectiveness of radiotherapy of comprising administration of a compound accordning to claim 1, in a therapeutically effective amount so as to increase sensitivity of cells to ionizing radiation, prior to administration of said radiotherapy Use according to claims 8 and 9 wherein the treatment involves radiosensitization.

25 12. (Original) A combination of a compound with a chemotherapeutic agent wherein said compound is a compound of formula (I)

30



the *N*-oxide forms, the pharmaceutically acceptable addition salts and the stereochemically isomeric forms thereof, wherein

5

n is 0 or 1;

s is 0 or 1;

X is $-\text{N}=$ or $-\text{CR}^4=$, wherein R^4 is hydrogen or taken together with R^1 may form a

10 bivalent radical of formula $-\text{CH}=\text{CH}-\text{CH}=\text{CH}-$;

Y is $-\text{N}<$ or $-\text{CH}<$;

Q is $-\text{NH}-$, $-\text{O}-$, $-\text{C}(\text{O})-$, $-\text{CH}_2-\text{CH}_2-$ or $-\text{CHR}^5-$,

15 wherein R^5 is hydrogen, hydroxy, C_{1-6} alkyl, aryl C_{1-6} alkyl, C_{1-6} alkyloxycarbonyl, C_{1-6} alkyloxy C_{1-6} alkylamino or haloindazolyl;

R^1 is C_{1-6} alkyl or thienyl;

20 R^2 is hydrogen or taken together with R^3 may form $=\text{O}$;

R^3 is hydrogen, C_{1-6} alkyl or a radical selected from

- NR^6R^7 (a-1),

- $\text{O}-\text{H}$ (a-2),

25 - $\text{O}-\text{R}^8$ (a-3),

- $\text{S}-\text{R}^9$ (a-4), or

— $\text{C}\equiv\text{N}$ (a-5),

wherein

R^6 is $-\text{CHO}$, C_{1-6} alkyl, hydroxy C_{1-6} alkyl, C_{1-6} alkylcarbonyl,

30 di(C_{1-6} alkyl)amino C_{1-6} alkyl, C_{1-6} alkylcarbonylamino C_{1-6} alkyl, piperidinyl C_{1-6} alkyl, piperidinyl C_{1-6} alkylaminocarbonyl, C_{1-6} alkyloxy, C_{1-6} alkyloxy C_{1-6} alkyl, thieryl C_{1-6} alkyl, pyrrolyl C_{1-6} alkyl, aryl C_{1-6} alkylpiperidinyl, arylcarbonyl C_{1-6} alkyl, arylcarbonylpiperidinyl C_{1-6} alkyl, haloindozolylpiperidinyl C_{1-6} alkyl, or aryl C_{1-6} alkyl(C_{1-6} alkyl)amino C_{1-6} alkyl; and

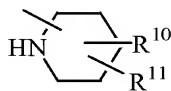
R⁷ is hydrogen or C₁₋₆alkyl;
 R⁸ is C₁₋₆alkyl, C₁₋₆alkylcarbonyl or di(C₁₋₆alkyl)aminoC₁₋₆alkyl; and
 R⁹ is di(C₁₋₆alkyl)aminoC₁₋₆alkyl;
 or R³ is a group of formula

5 -(CH₂)_t-Z- (b-1),

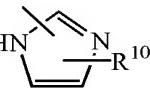
wherein

t is 0, 1 or 2;

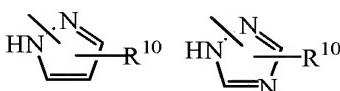
Z is a heterocyclic ring system selected from



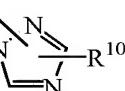
(c-1)



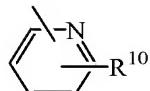
(c-2)



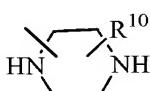
(c-3)



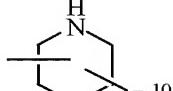
(c-4)



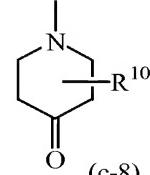
(c-5)



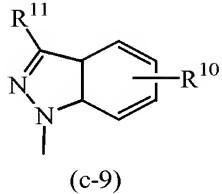
(c-6)



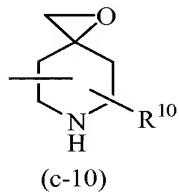
(c-7)



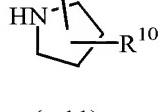
(c-8)



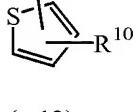
(c-9)



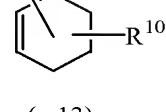
(c-10)



(c-11)



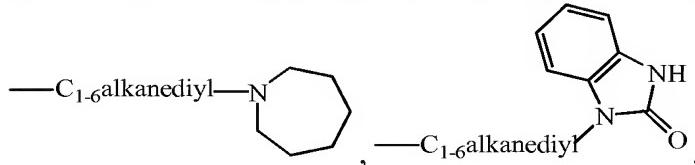
(c-12)



(c-13)

15

wherein each R¹⁰ independently is hydrogen, C₁₋₆alkyl, aminocarbonyl, hydroxy,



20

C₁₋₆alkyloxyC₁₋₆alkyl, C₁₋₆alkyloxyC₁₋₆alkylamino, di(phenylC₂₋₆alkenyl), piperidinylC₁₋₆alkyl, C₃₋₁₀cycloalkyl, C₃₋₁₀cycloalkylC₁₋₆alkyl,

aryloxy(hydroxy)C₁₋₆alkyl, haloindazolyl, arylC₁₋₆alkyl, arylC₂₋₆alkenyl, morpholino, C₁₋₆alkylimidazolyl, or pyridinylC₁₋₆alkylamino;

each R¹¹ independently is hydrogen, hydroxy, piperidinyl or aryl;

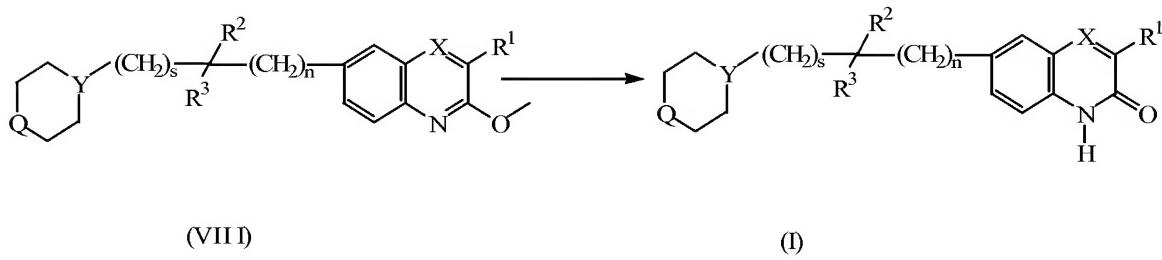
aryl is phenyl or phenyl substituted with halo, C₁₋₆alkyl or C₁₋₆alkyloxy.

25

13. (Currently Amended) A process for preparing a compound as claimed in claim 1, comprising characterized by

a) ~~the hydrolysis of intermediates of formula (VIII), according to art known methods, by submitting the intermediates of formula (VIII) to appropriate reagents, such as, tinchloride, acetic acid and hydrochloric acid, in the presence of a reaction inert solvent, e.g. tetrahydrofuran.~~

5

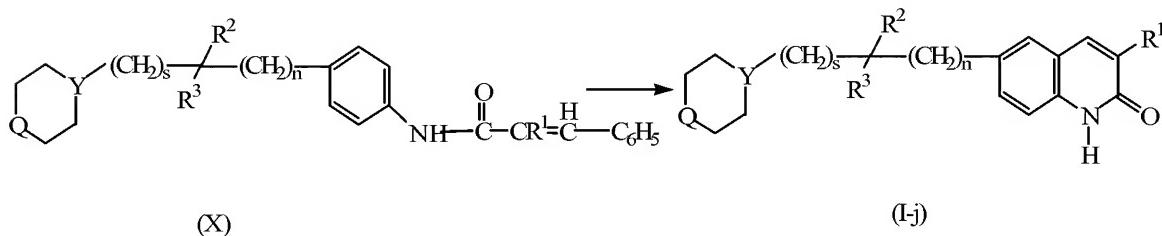


(VIII)

(I)

10 b) ~~the cyclization of intermediates of formula (X), according to art known cyclizing procedures into compounds of formula (I) wherein X is CH herein referred to as compounds of formula (I-j), preferably in the presence of a suitable Lewis Acid, e.g. aluminum chloride either neat or in a suitable solvent such as, for example, an aromatic hydrocarbon, e.g. benzene, chlorobenzene, methylbenzene and the like; halogenated hydrocarbons, e.g. trichloromethane, tetrachloromethane and the like; an ether, e.g. tetrahydrofuran, 1,4-dioxane and the like or mixtures of such solvents. and~~

15



(X)

(I-j)

20

c) ~~the condensation of an appropriate ortho-benzenediamine of formula (XI) with an ester of formula (XII) into compounds of formula (I), wherein X is N and R² taken together with R³ forms =O, herein referred to as compounds of formula (I-a-1), in the presence of a carboxylic acid, e.g. acetic acid and the like, a mineral acid such as, for example hydrochloric acid, sulfuric acid, or a sulfonic acid such as, for example, methanesulfonic acid, benzenesulfonic acid, 4-methylbenzenesulfonic acid and the like.~~

25

